

REMARKS

Claims 1-10, 12-35, 48-50 and 52-53 are pending. New claim 53 has been added to protect on invention the Applicants wish to protect. New Claim 53 recites "A compound, comprising a peptide or peptidomimetic $\alpha_v\beta_3$ receptor targeting moiety bound to a chelator, wherein said chelator is a diaminedithiol, monoamine-monoamidedithiol, triamide-monothiol, monoamine-diamide-monothiol, diaminedioxime, hydrazine, or cyclic polyaminocarboxylate, or acyclic polyaminocarboxylate." No new matter has been added.

As indicated by the Examiner, Applicants will address the provisional double patenting once all other rejections are withdrawn, and Applicants appreciate the Examiner's patience in this regard.

Claims 1, 2, 12-15, 17, 19-23, 25, 27, 28, 31-35, 48-50, and 52 stand rejected under 35 USC §103 over U.S. Patent No. 5,780,426 (the "Palladino reference") in view of U.S. Patent No. 6,331,285 (the "Sharma reference"). Applicants respectfully traverse the rejection, and submit that a *prima facie* case of obviousness has not been made.

Claim 1 recites "A compound, comprising: a targeting moiety and a chelator, wherein **the targeting moiety is bound to the chelator**, is a peptide or peptidomimetic, and binds to a receptor that is upregulated during angiogenesis, the receptor is $\alpha_v\beta_3$, and **the compound has a linking group between the targeting moiety and chelator**, the linking group having the formula . . ." Emphasis added.

Claim 52 recites "A compound comprising a peptide or peptidomimetic $\alpha_v\beta_3$ receptor **targeting moiety bound to a chelator**." Emphasis added.

Yet, in applying the rejection, the Examiner stated:

... while Palladino does not disclose a specific species having all of the components

as set forth in Applicant's claims 1 and 52, the reference does suggest the presence of the component^[1] when combined with the teachings of Sharma. ... It should be noted that Sharma is the secondary reference and is not required to disclose all features present in the primary reference.

Applicants submit that the Examiner's position ignores the MPEP §2143.03 requirement that "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art."

The combination simply does not teach or suggest all limitations of Applicants' claims. For example, all three of Applicants' independent claims share a common limitation, to wit, a compound having a targeting moiety that is "**bound to**" the chelator. Thus, the Examiner must show a targeting moiety bound to the chelator.

Instead, in rejecting Claims 1 and 52, the Examiner has presented 1) peptides which have a metal ion-binding backbone (the Sharma reference), and thus no separate chelator portion to be "bound to," and 2) labeled immunoreaction products involving peptides (the Palladino reference).

The Palladino reference was **specifically concerned with detecting formation of an antibody complex involving the peptides. Col. 20, lines 56-57.** Thus, the label could just as often be bound to the antibody, which teaches away from the limitation. *See* col. 20, line 55- col. 21, line 8. In fact, one skilled in the art might well inject the unlabeled peptide and follow with labeled antibody to detect formation of the complex. Thus, with all the conflicting teachings, there is no clear motivation or suggestion that the specific targeting moiety be bound to a chelator. Thus, the Examiner has added the Sharma reference as a

¹ Applicants respectfully request to know which component the Examiner is referring to here.

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secondary reference. However, as mentioned above, in the Sharma reference, the peptide is the chelator, and so is not bound to the chelator. Thus, whether taken together or separately, the limitations are not taught.

The level of impermissible hindsight in the rejection becomes even more apparent when the dependent claims are considered. For example, **the Examiner has not addressed how the references can be modified to arrive at the specific compounds listed in dependent claims 6, 16, 18, 22, 24, 26, and 30.** The MPEP states that "[t]he teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure." MPEP §2142 (emphasis added). Thus, rejection of these dependent claims is improper as well.

Claim 53 enjoys the benefit of reciting that the targeting moiety is bound to a chelator, and further lists a group of chelators found throughout the specification.

If the Examiner has any questions, she is invited to call the undersigned.

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